

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for controlling flow of requests and replies between one or more request-transmitting electronic devices that each stores new and pending requests in an electronic memory and retrieves new and pending requests from the electronic memory for transmission, and one or more request-receiving electronic devices that each accepts requests transmitted from the one or more request-transmitting electronic devices, transmitting back to the one or more request-transmitting electronic devices ACK replies, and rejects requests transmitted from the one or more request-transmitting electronic devices, transmitting back to the one or more request-transmitting electronic devices a NAK replies, the method comprising:

storing by each request-transmitting electronic device a retry bit associated with each stored request;

storing by each request-receiving electronic device a retry vector containing bits corresponding to request-transmitting electronic devices from which the request-receiving electronic device receives requests;

maintaining a copy in storage, by each request-transmitting electronic device, of each request until an ACK reply corresponding to the request is received by the request-transmitting electronic device;

employing the retry bits associated with each stored request by each request-transmitting electronic device to mark requests for retransmission; and

employing the retry vector by each request-receiving electronic device to mark request-transmitting electronic devices that need to retransmit one or more rejected requests;
wherein, when each request-transmitting electronic device receives a NAK reply from a particular request-receiving electronic device,

when the request corresponding to the NAK reply is the oldest pending request directed to the request-receiving electronic device, setting the retry bits of all subsequent requests directed to the particular request-receiving electronic device and retransmitting the oldest pending request to the particular request-receiving electronic device with a special marker bit, and

when the request corresponding to the NAK reply is not the oldest pending request directed to the particular request-receiving electronic device, retransmitting the request to the particular request-receiving electronic device without a special marker bit.

2. cancel

3. (previously presented) The method of claim 1 wherein, when each request-receiving electronic device receives a request from a particular request-transmitting electronic device:

when the retry vector bit corresponding to the particular request-transmitting electronic device is set and when no special marker bit is set in the request, sending a NAK reply back to the particular request-transmitting electronic device; and

when the retry vector bit corresponding to the particular request-transmitting electronic device is not set or a special marker bit is set in the request,

determining if the request can be processed by the request-receiving electronic device,

when the request can be processed by the request-receiving electronic device, resetting the retry vector bit corresponding to the particular request-transmitting electronic device and sending an ACK reply back to the particular request-transmitting electronic device, and

when the request cannot be processed by the request-receiving electronic device, setting the retry vector bit corresponding to the particular request-transmitting electronic device and sending a NAK reply back to the particular request-transmitting electronic device.

4-14 cancel

15. (currently amended) A system containing two electronic devices that communicate through one or more communications mediums, the system comprising:

a first electronic device that stores new and pending requests in an electronic memory and retrieves new and pending requests from the electronic memory for transmission;

a retry bit associated with each stored request within the first electronic device;

a second electronic device that accepts requests transmitted from the first electronic device, transmitting back to the first electronic device an ACK reply, and rejects requests transmitted from the first electronic device, transmitting back to the first electronic device a NAK reply; ~~and~~

a retry vector maintained by the second electronic device containing retry vector bits corresponding to each electronic device, from which the second electronic device receives requests, including the first electronic device, that needs to retransmit one or more rejected requests; and

control logic within the first electronic device that, when a request corresponding to a NAK reply is the oldest pending request directed to the second electronic device, sets the retry bits associated with all subsequent requests directed to the second electronic device and retransmits the oldest pending request to the second electronic device with a special marker bit.

17. (currently amended) The system of claim ~~16~~ 15 wherein, when a request corresponding to the NAK reply is not the oldest pending request directed to the second electronic device, the control logic retransmits the request to the second electronic device without a special marker bit.

18. (original) The system of claim 15 further comprising:

control logic within the second electronic device that receives a request from the first electronic device and, when the retry vector bit corresponding to the first electronic device is set and when no special marker bit is set in the request, sends a NAK reply back to the first electronic device.

19. (original) The system of claim 18 wherein, when the retry vector bit corresponding to the first electronic device is not set or a special marker bit is set in a received request, the control logic determines if the request can be processed by the second electronic device and, when the request can be processed by the second electronic device, resets the retry vector bit corresponding to the first electronic device and sends an ACK reply back to the first electronic device.

20. (original) The system of claim 19 wherein, when the request cannot be processed by the second electronic device, the control logic sets the retry vector bit corresponding to the first electronic device and sends a NAK reply back to the first electronic device.